



**TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT NO. 67297**

WEMCO Portable Concrete Batch Plant

I. INTRODUCTION

This Class II permit is issued to McNeil Brothers Inc., the Permittee, for the continued operation of a Portable Concrete Batch Plant which will be operated statewide in Arizona. This is a renewal of Permit #55139

A. Company Information

1. Facility Name: WEMCO Portable Concrete Batch Plant
2. Facility Location: Portable
3. Mailing Address: 6681 West Allison, Chandler, AZ 85226

II. PROCESS DESCRIPTION

A. Facility Description

The facility operates a portable central mix concrete batch plant capable of producing 250 cubic yards per hour of concrete. Cement powder, fly ash, large and small aggregate, sand and water are mixed to produce concrete. The ready mix concrete is weighed and fed into trucks for delivery.

B. Control Devices

A baghouse will be used to control particulate matter emissions from the loading and unloading of the silo and the transfer of material to the cement/flyash weigh hopper. Spray bars are utilized to control emissions where sand and aggregate are transferred via conveyors. Particulate matter emissions from storage piles, roadways and other various sources will be controlled by water trucks, chemical dust suppressants or equivalent methods as needed.

III. EMISSIONS

Emissions are based on 24 hours/365 days of operations. With controls, the PTE is below both the major source and for Maricopa County Best Available Control Technology (BACT) thresholds.

**Table 1: Potential Emissions (tons per year)**

Pollutant	Uncontrolled Emissions	Controlled Emissions	Previous Permit Controlled Emissions	Increase	Permitting Exemption Threshold	Maricopa County BACT Thresholds
PM	590.95	24.75	8	16.75	-	-
PM₁₀	256.17	10.13	3	7.13	7.5	15
PM_{2.5}	136.11	3.74	0.5	3.24	5	10

IV. MINOR NEW SOURCE REVIEW

The increase in emissions are below permitting exemption threshold. Minor new source review is not triggered. The increase in emissions is due to proposed increase in hours of operation.

V. APPLICABLE REGULATIONS

Table 2 displays the applicable requirements for each permitted piece of equipment along with an explanation of why the requirement is applicable.

Table 2: Verification of Applicable Regulations

Unit	Control Device	Rule	Discussion
Concrete Batch Plant	Baghouse, Spray bars, water spray, chemical suppressants and other reasonable precaution	A.A.C. R18-2-604.A, R18-2-605, R18-2-606, R18-2-607, R18-2-614, R18-2-702.B R18-2-723 Maricopa County Rule 300, 316 and 320 Pima County Code SIP Rule 343 §§17.16.040 §§17.16.380 Pinal County Code §4-2-040 §4-2-050	Standards of performance for concrete batch plants and fugitive dust sources. Standards for visible emissions and opacity. Limits for particulate matter emissions from any non-metallic mining operating or rock product processing plant. Limits for odors and other gaseous air contaminants. Standards and applicability for opacity limitations. Standards of performance for concrete batch plants. Stationary source performance standards for gravel or crushed stone processing plant and concrete batch plants.



Unit	Control Device	Rule	Discussion
Fugitive dust sources	Water Trucks Dust Suppressants	A.A.C. R18-2 Article 6 A.A.C. R18-2-702 Maricopa County Rule 300 and 316 Pima County Code §§17.16.060 §§17.16.080 §§17.16.090 §§17.16.100 Pinal County Code §4-2	These standards are applicable to all fugitive dust sources at the facility. Visible Emissions standards. Limits for particulate matter emissions from rock product processing plant. Fugitive dust producing activities. Vacant lots and open spaces. Roads and Streets Material Handling. Emissions from existing non-point sources-fugitive dust control.
Abrasive Blasting	Wet blasting; Dust collecting equipment; Other approved methods	A.A.C. R-18-2-702 A.A.C. R-18-2-726 Maricopa County Rule 312§410 Pinal County Code §5-4-140	These standards are applicable to any abrasive blasting operation. Limits for particulate emissions from abrasive blasting operations. The facility is subject to Pinal County Code §5.4.140 but regulations were streamlined because A.A.C. R18-2-726 and A.A.C R18-2-702.B are equivalent.
Spray Painting	Enclosures	A.A.C. R18-2-702 A.A.C. R-18-2-727 Maricopa County Rule 315	This standard is applicable to any spray painting operation. Limits for particulate matter emissions from spray coating operations.
Demolition/renovation operations	N/A	A.A.C. R18-2-1101.A.8	This standard is applicable to any asbestos related demolition or renovation operations.
Mobile sources	None	A.A.C. R18-2-801 Maricopa County Rule 200§410 Pima County Code §§17.12.300	These are applicable to off-road mobile sources, which either move while emitting air pollutants or are frequently moved during the course of their utilization. County mobile source requirements. The facility is subject to Pima County Code §§17.12.300 but the regulations were streamlined because A.A.C. Article 8 is equivalent.

VI. PREVIOUS PERMIT CONDITIONS

Permit No. 55139 was issued on March 13, 2013, for the continued operation of this facility. Table 3 below illustrates if a section in Permit No. 67297 was revised or deleted.

Table 3: Permit No. 67297

Section No.	Determination		Comments
	Revised	Delete	
Att. A.	X		General Provisions - Revised to represent most recent template language.
Att. B.	X		See Below
I.A	X		Revised to include Alternative Method ALT-082 for opacity observations.
I.B	X		Daily operation hours of operation limitation removed.

VII. MONITORING REQUIREMENTS

A. Facility-Wide

- At the frequency specified in the each sections of this permit, the Permittee shall conduct an instantaneous survey of visible emissions from both process stack sources, when in operation, and fugitive dust sources.
- The Permittee is required to keep records of the name of the observer, the time, date, and location of the observation and the results of all surveys and observations.
- The Permittee is required to keep records of any corrective action taken to lower the opacity of any emission point and any excess emission reports.

B. Fugitive Dust

- The Permittee is required to keep records of the dates and types of dust control measures employed.
- The Permittee is required to show compliance with the opacity standards in the fugitive dust section of the permit by having a Method 9 or ALT-082 certified observer perform a monthly survey of visible emission from fugitive dust sources. The observer is required to conduct a six minute Method 9 or ALT-082 observation if the results of the initial survey appear on an instantaneous basis to exceed the applicable standard.
- The Permittee is required to keep records of the name of the observer, the time, date, and location of the observation and the results of all surveys and observations.
- The Permittee is required to keep records of any corrective action taken to lower the opacity of any emission point and any excess emission reports.

C. Periodic Activities

- The Permittee is required to record the date, duration and pollution control measures of any abrasive blasting project.
- The Permittee is required to record the date, duration, quantity of paint used, any

applicable SDS, and pollution control measures of any spray painting project.

3. The Permittee is required to maintain records of all asbestos related demolition or renovation projects. The required records include the “NESHAP Notification for Renovation and Demolition Activities” form and all supporting documents.

D. Mobile Sources

The Permittee is required to keep records of all emission related maintenance performed on the mobile sources.

VIII. COMPLIANCE HISTORY

There have been no violations cited for this facility during the previous permit term.

IX. AMBIENT AIR IMPACT ANALYSIS

The facility is an existing portable source. A modeling based on prior location was submitted with the application. The results in Table 4 below shows that the emissions meets the National Ambient Air Quality Standard (NAAQS).

Table 4. NAAQS Modeling Analysis Results

Pollutant and Averaging Period		Background Concentration (µg/m ³)	Modeling Concentration (µg/m ³)	Modeled + Background Concentration (µg/m ³)	NAAQS (µg/m ³)	Exceed NAAQS?
PM ₁₀	24 hour	91	47	138	150	NO
PM _{2.5}	24 hour	15.7	8.3	24	35	NO
	Annual	7.2	3.6	10.8	12	NO

X. LIST OF ABBREVIATIONS

A.A.C. Arizona Administrative Code
 NAAQS..... National Ambient Air Quality Standard
 PM.....Particulate Matter
 PM₁₀..... Particulate Matter Nominally less than 10 Micrometers
 PM_{2.5}..... Particulate Matter Nominally less than 2.5 Micrometers
 PTE Potential-to-Emit
 TPY Tons per Year